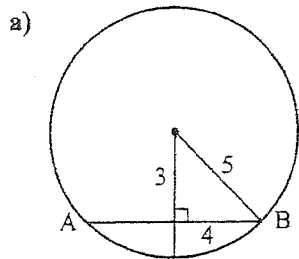


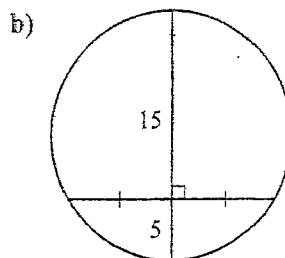
Circle Terminology & Chord Properties

Exercise Set

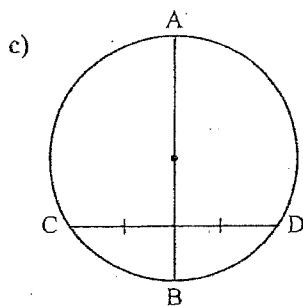
1. Determine the missing value.



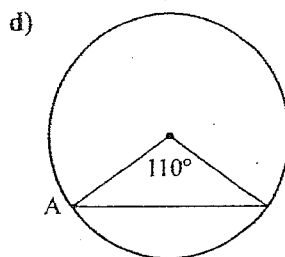
$$AB = \underline{\hspace{2cm}}$$



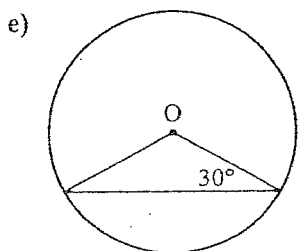
$$\text{Radius} = \underline{\hspace{2cm}}$$



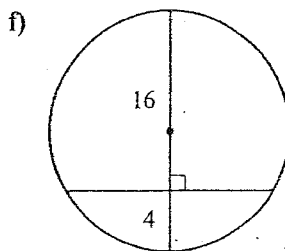
$$AB \underline{\hspace{1cm}} CD$$



$$\angle A = \underline{\hspace{2cm}}^\circ$$

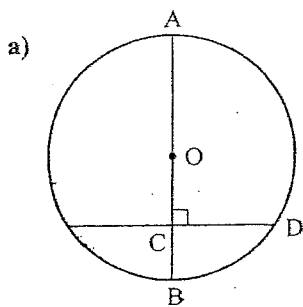


$$\angle O = \underline{\hspace{2cm}}^\circ$$



$$\text{Radius} = \underline{\hspace{2cm}}$$

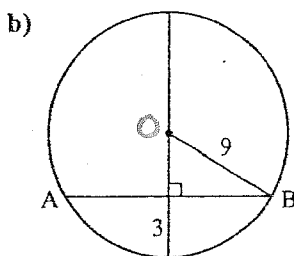
2. Determine the missing length.



$$AC = 20$$

$$BC = 5$$

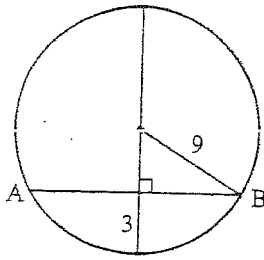
$$OD = \underline{\hspace{2cm}}$$



$$OA = \underline{\hspace{2cm}}$$

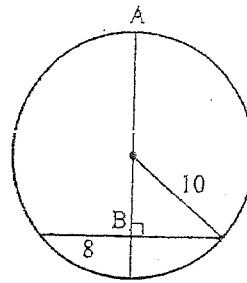
a) $AB = 8$ b) $R = 10$ c) \perp d) $\angle A = 35^\circ$ e) $\angle O = 120^\circ$ f) $R = 10$
 2a) $OD = 12.5$ b) $OA = 9$

2. c)



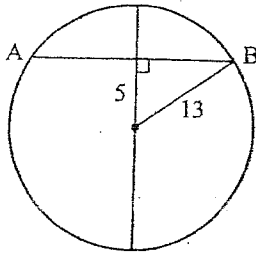
$$AB = \underline{\hspace{2cm}}$$

d)



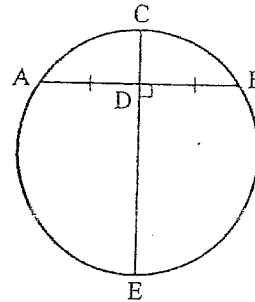
$$AB = \underline{\hspace{2cm}}$$

e)



$$AB = \underline{\hspace{2cm}}$$

f)

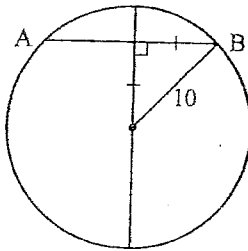


$$CD = 2$$

$$DE = 8$$

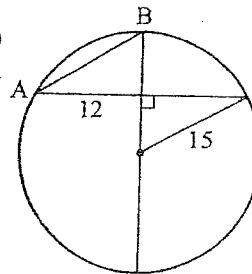
$$AB = \underline{\hspace{2cm}}$$

g)



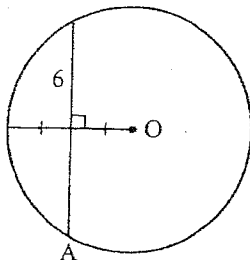
$$AB = \underline{\hspace{2cm}}$$

h)



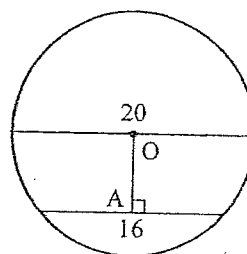
$$AB = \underline{\hspace{2cm}}$$

i)



$$OA = \underline{\hspace{2cm}}$$

j)



$$OA = \underline{\hspace{2cm}}$$

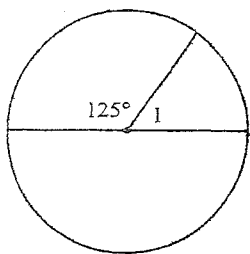
2c) $AB \approx 13.42$ d) $AB = 16$ e) $AB = 24$ f) $AB = 8$ g) $AB \approx 14$
 h) $AB \approx 13.42$ i) $OA \approx 6.93$ j) $OA = 6$

8.2 Exercise Set

Central & Inscribed Angles

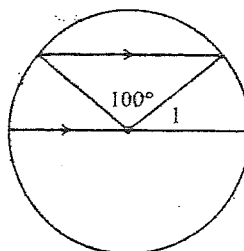
1. Find the missing angles.

a)



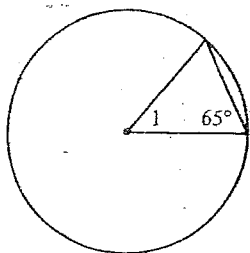
$\angle 1 = \underline{\hspace{2cm}}$

b)



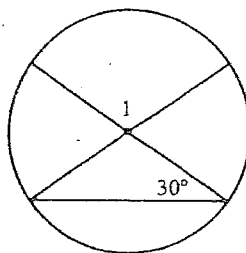
$\angle 1 = \underline{\hspace{2cm}}$

c)



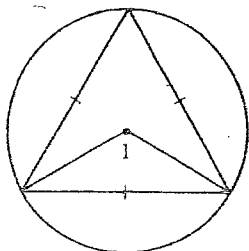
$\angle 1 = \underline{\hspace{2cm}}$

d)



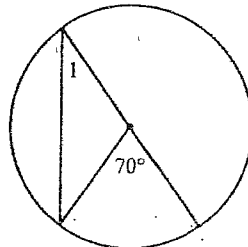
$\angle 1 = \underline{\hspace{2cm}}$

e)



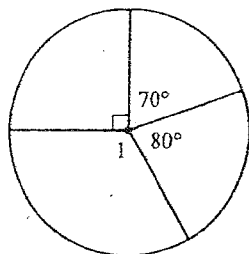
$\angle 1 = \underline{\hspace{2cm}}$

f)



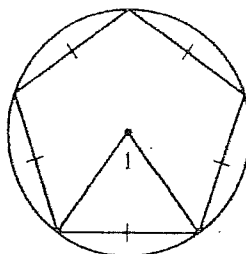
$\angle 1 = \underline{\hspace{2cm}}$

g)



$\angle 1 = \underline{\hspace{2cm}}$

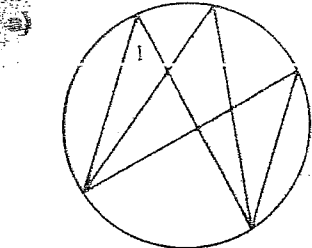
h)



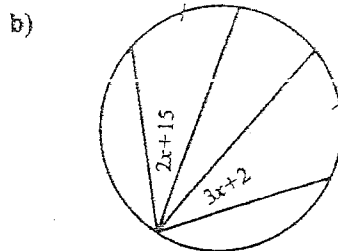
$\angle 1 = \underline{\hspace{2cm}}$

1) $\angle 1 = 55^\circ$ b) $\angle 1 = 40^\circ$ c) $\angle 1 = 50^\circ$ d) $\angle 1 = 120^\circ$ e) $\angle 1 = 120^\circ$
 f) $\angle 1 = 35^\circ$ g) $\angle 1 = 120^\circ$ h) $\angle 1 = 72^\circ$

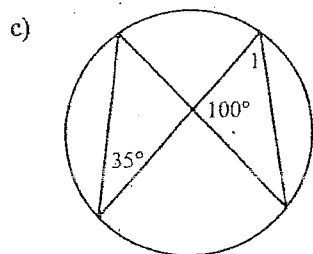
Solve.



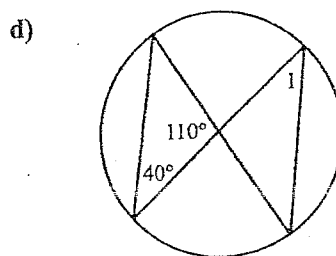
Mark angles
congruent to $\angle 1$



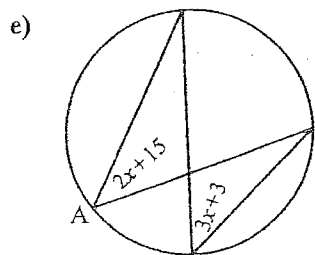
$x = \underline{\hspace{2cm}}$



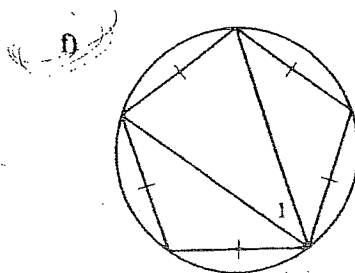
$\angle 1 = \underline{\hspace{2cm}}$



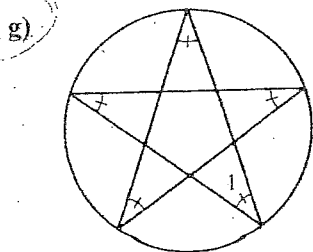
$\angle 1 = \underline{\hspace{2cm}}$



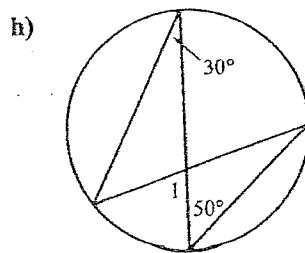
$\angle A = \underline{\hspace{2cm}}$



$\angle 1 = \underline{\hspace{2cm}}$



$\angle 1 = \underline{\hspace{2cm}}$

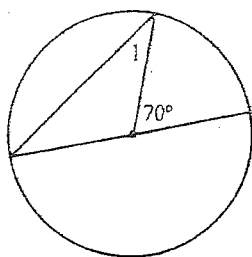


$\angle 1 = \underline{\hspace{2cm}}$

2b) $x = 13$ c) $\angle 1 = 45^\circ$ d) $\angle 1 = 30^\circ$ e) $\angle A = 12$
 f) $\angle 1 = 36^\circ$ g) $\angle 1 = 36^\circ$ h) $\angle 1 = 80^\circ$

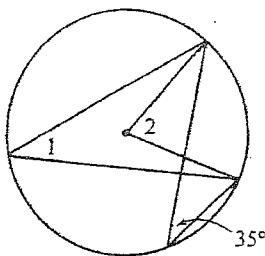
3. Solve

a)



$\angle 1 = \underline{\hspace{2cm}}$

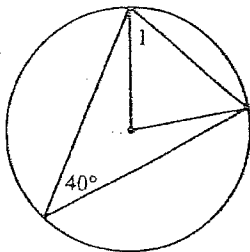
b)



$\angle 1 = \underline{\hspace{2cm}}$

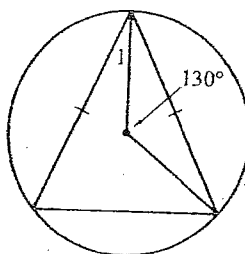
$\angle 2 = \underline{\hspace{2cm}}$

c)



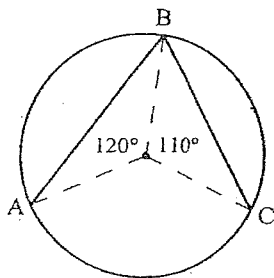
$\angle 1 = \underline{\hspace{2cm}}$

d)



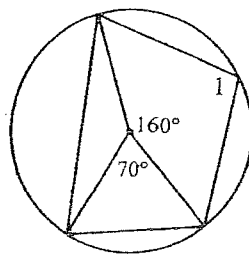
$\angle 1 = \underline{\hspace{2cm}}$

e)



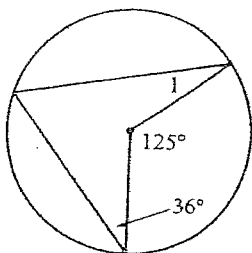
$\angle ABC = \underline{\hspace{2cm}}$

f)

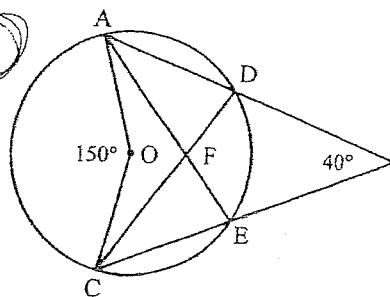


$\angle 1 = \underline{\hspace{2cm}}$

g)



$\angle 1 = \underline{\hspace{2cm}}$



$\angle AFC = \underline{110^\circ}$

3) $\angle 1 = 35^\circ$

b) $\angle 1 = 35^\circ$
 $\angle 2 = 70^\circ$

c) $\angle 1 = 50^\circ$ d) $\angle 1 = 25^\circ$

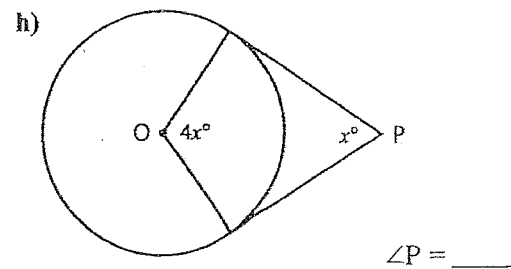
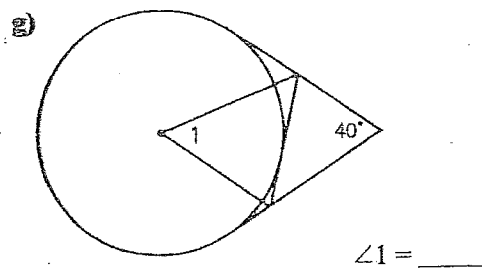
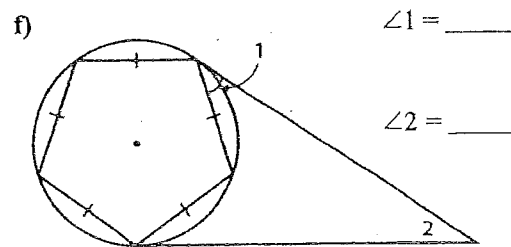
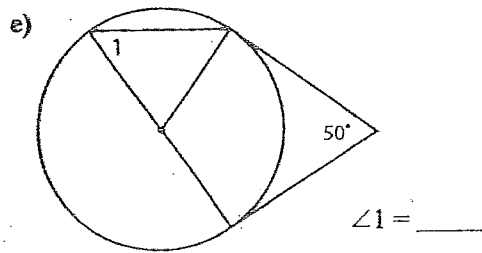
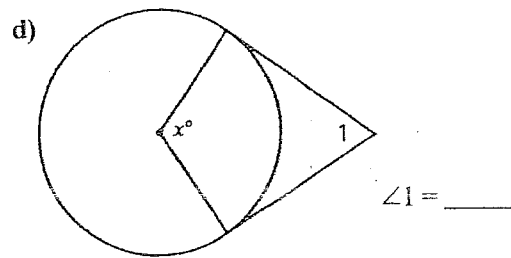
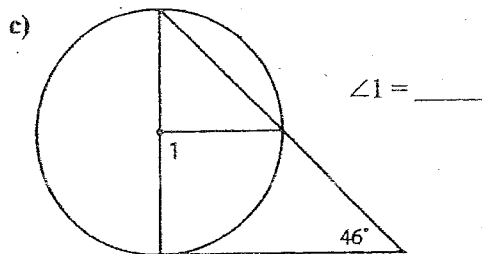
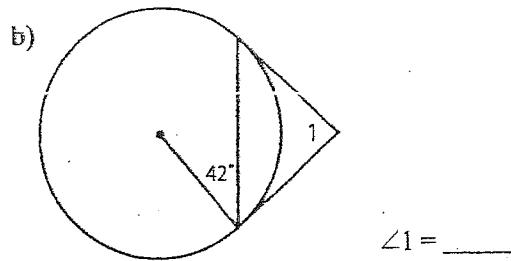
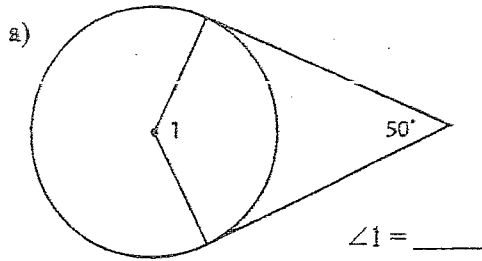
e) $\angle ABC = 65^\circ$

f) $\angle 1 = 100^\circ$

g) $\angle 1 = 26.5$

h) $\angle AFC = 110^\circ$

2. Solve using the tangent property.



a) $\angle 1 = 130^\circ$ b) $\angle 1 = 84^\circ$ c) $\angle 1 = 88^\circ$

d) $\angle 1 = 180 - x^\circ$ e) $\angle 1 = 65^\circ$ f) $\angle 1 = 36^\circ$
 $\angle 2 = 36^\circ$

g) $\angle 1 = 50^\circ$ h) $x = 72^\circ$ $\angle P = 72^\circ$